Work Ord March-12-13 1		3450		*984	<b>15</b> 0*							Page	1
Item ID: Revision ID:	D2022-101			Accept	*N900	<b>04</b> 0	100	)*	Setup	Start Stop	*N:	S1*	
Item Name: Start Date: Required Date Reference:	Spacer 3/08/13 : 3/19/13	Start Qty: 60.00 Req'd Qty: 60.00	*60* *60*		Cust Item I Customer:	D:				эзэр	^IN	S2*	
Approvals:	Process Pl	an: ML5	Date: <u>13-03- \</u>	3 Tooling: SPC (Y/N):		nte:			Run	Start Stop	*N *N	R1*	
Sequence ID/ Work Center I		Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	t Re		Reject Number	Insp. Stamp	
Draw Nbr	Re	vision Nbr											
D2022	rev	97.01.14											
*100 *100* Hardinge Hardinge CNC Lat	he Small	Memo Note:.257" o 1-Turn as pe FOLIO REV DWG REV: 2-Deburr as	er folio FA206 & dwg	0.00	SJ 13-0	3-27		60	<u>بر</u>	8			_
110 *110* QC Quality Control		QC2- Inspect parts off m	nachine FAI/FAIB	0.00	AJ 13-0.	3-27		60		Ø	<del></del>		_

											DQA:	Da	te:		
NCR: Y	'es	/ No				WORK ORDER NON-	CON	FORN	MANCE / UPDATE		QA Closed:		te.		•
						DISPOSITION			AGAINST	DE	PARTMENT		ш.		
Nork Orde	er: _					·	, I			_	1			<del>.</del>	
Part N	-					Rework Scrap Use-as-is Work Order Update		N Therm	Skid-tube Crosstube Machining Small Fab noforming Finishing Large Fab Composite		4	Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other	
Root Cause		Date	Step	Qty		ription of work order update or Non-conformance	1	nitial ef Eng	Action Description		Sign & Date	Verificatio	n	QC Inspector	
oc/Data quip/Tooling perator flaterial etup ther rocess upplier raining			•												•
				LL		F	AUL	T CATE	GORY						•
Landi	ng G	iear				General					_				
		Bending Centre No Cracks Crushed/C Cuffs Heat Trea Inspectior Ripples in Torque W	Crimped t n Strip in Bend 'aves in E	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instructi Mainte Mislabel Misread Offset Out of C	on Incomplete ions Incomplete/Unclear nance led Calibration		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	-
	_	Turning Se				Finish			equence						
		Wave/Twi	ist in Tub	e e	l	Folio		Outside	Dimensions						

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord		450		*984	I50*					Page 2	
Item ID: Revision ID: Item Name:	D2022-101 Spacer			Accept	*N90004	4 <b>010</b> (	<b>n</b> *	Setup S		*NS1* *NS2*	Ξ.
Start Date: Required Date: Reference:	3/08/13 : 3/19/13	Start Qty: 60.00 Req'd Qty: 60.00	*60* *60*		Cust Item ID: Customer:						
Approvals:	Process Pla	in:	Date:	Tooling: SPC (Y/N):	Date:				Stop	*NR1* *NR2*	
Sequence ID/ Work Center I 120 *120*	D	Operation Description QC8- Inspect parts - seco	nd check	Set Up/ Run Hours 0.00	Tool ID To	ool# Plan Code	Accep Qty	t Reject Qty		ect Insp. mber Stamp	_
Quality Control		Identify as per dwg & Sto	ock Location: <u>ST06</u> 4	0.00							
*130* Packaging Packaging		Мето		0.00			le C	<u> </u>		13-03-2°	Ι <sub>\$</sub>
140 *140* QC		QC21- Final Inspection -	Work Order Release	0.00			· ·.	13,	13/2	184)	

Quality Control

MC5 13-03-28

												DQA:	Date	e: _	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFOR	MANCE / UP	DATE		·			
												QA Closed:	Date	e:	
Work Ord	oŕ.					DISPOSITION				AGAINST	DE	PARTMENT	PROCESS		
WOIK OIG	C1.					Rework	٦ أ		Skid-tube	Crosstube	_	1	Water Jet		Engineering
Part I	No.					Scrap	1		Machining	Small Fab	_	Pro	d. Eng. Coor.		Quality
				<del>- · . · · · · · ·</del>		Use-as-is	1		noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR I	No.					Work Order Update	]		Large Fab	Composite			Supplier		
			<u> </u>	<del></del>		<u> </u>						c: 0		_	
Root						ption of work order update	1	Initial	i	ction		Sign &		١	
Cause		Date	Step	Qty	(	or Non-conformance	Cr	ief Eng	Desc	ription		Date	Verification	_	QC Inspector
Doc/Data		-													
Equip/Tooling	Ш													ı	
Operator	Ш														
Material	Ш		1									[			
Setup	Ш														
Other	Ш														
Process														١	
Supplier															
Training		i					1							ı	
Unapproved						· · · · · · · · · · · · · · · · · · ·			<u> </u>						·
						F	AUL	T CATE	GORY						
Landi	ng (	Gear			_	General	_	-			_	_	-		
		Bending			L	Bend		Grain			L	Ovalized	L		Pressure/Forced
		Centre No	ot Concei	ntric to	o/s	BOM/Route		Hardwa	ire		L	Over/Under	tolerance		Temperature/Cure
	Centre Not Concentric to O/S Cracks			Broken/Damaged	1	Inspect	ion Incomplete			Part Incorrec	t l	ı	Weld		

Instructions Incomplete/Unclear

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Wrong Stock Pulled

Other

Part Lost/Missing

Positioned Wrong Power Loss/Surge

Part Moved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Burrs

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Work Order ID:

98450

Parent Item:

D2022-101

Parent Item Name:

Spacer

**Start Date: 3/08/13** 

Required Date: 3/19/13

Page 1

**Start Qty:** 60.00

Required Qty: 60.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R0.750 6061-T6 Round Bar .750"		Purchased	No			100	f	98.6290	0.03	911.1.8		$\mathcal{M}_{1}$	3-03-2
				<b>Location</b>		Loc Oty	<u>Lo</u>	c Code					
				MAT012		13							
				1207	34	13			<del> </del>				
				MAT013		85.629							
				1212	82	9.024							
				1220	81	26.494							
				1237	57	0.869							
				1246	81	49.242			100	<u> </u>			

											DQA:	Date:	~ _
NCR: Y	'es /	No				WORK ORDER NON-	-COI	NFORM	MANCE / UP	DATE	QA Closed:	 Date:	· · ·
Work Orde	r.					DISPOSITION				AGAINST DE		/PROCESS	
Part N						Rework Scrap		ſ	Skid-tube Machining	Crosstube Small Fab	-1	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	lo		·			Use-as-is Work Order Update	_		oforming Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	Other
Root						iption of work order update		Initial		tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector
oc/Data	_												
quip/Tooling	_						ļ						
perator	_	-					1				1		
/laterial					-								
etup	_												
Other		ı											
rocess													
upplier													
raining		Ì											
Inapproved													
							FAUL	T CATE	GORY				
Landi	ng Gea	ır		•		General		_			_		_
	Ве	ending				Bend		Grain			Ovalized		Pressure/Forced
	Ce	ntre No	t Concer	ntric to (	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cr	acks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	Cr	ushed/C	rimped			Burrs		Instruct	ions Incomplete/l	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	_	ıffs	•			Contamination		Mainte			Part Moved		<b>-</b>
	_	eat Treat	t			Countersink		Mislabe			Positioned V	Vrong	
	—		Strip in	Tube		Cut Too Short		Misread			Power Loss/	_	Other
	—	pples in	-			Drill Holes		Offset			<b>-</b>	· _	
	`		aves in E	xtrusior	, F	Drawing		4	Calibration				- , .
	_	· <del>-</del>	ouence		<b>—</b>	- Einich	<b>—</b>	1	equence		-		

Outside Dimensions

Wave/Twist in Tube

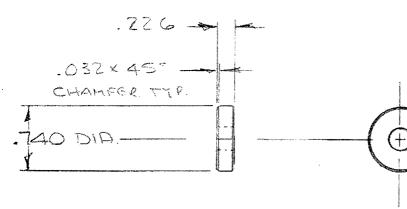
Folio

DART AEROSPACE LTD	Work Order:	98450
Description: Spacer	Part Number:	D2022-101
Inspection Dwg: D2022 Rev: -		Page 1 of 1

	x	First Arti	cle _	Prof	otype		
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Co	mments
0.226	+/-0.010	. 276	V		5108	Ven	1
0.032 x 45°	+/-0.010	.0294450	V				
0.740	+/-0.010	.739	/				
Ø0.257	+0.005/-0.000	. 158	V		(V		
easured by:		Audited by:	17		Prototype Ap	proval:	N/A
Date:	13-03-27	Date:	13-3	-27		Date:	N/A
ev Date	Change				R	evised by	Approve

I:\EORMS\Ouality A	Assurance\annroved	OALEAL roud

DOLLA BW



101-55050

E01-55050

SHOP COLL
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 98450 MCS

DRILL F (.257) DIR. INI -101 DRILL P (.323) DIA INI -103

MAT'L: ALUMINUM 6061-T6 (QQ-D-225/8)

COP VOS

SPACER 5/16 ALUM GOGI-TG 05055-103 8\025-A-QQ DSOSS-101 SPACER VA ALUM GOGILTE 100-10-250 MATERIAL DESCRIPTION SPEC\_/VENDOR REVISION RIVET CODE SHALL BE PER NAS 523 CONTRACT NO. APPROVAL DRAWN DART AERO ACCESSORIES INC APPROVED BSDDCEL. LENGTH DASH NO DESCRIPTION BRADLEY DIMENSIONS ARE IN INCHES SUPPCE ROUGHNESS 719. REMOVE SHAPP EDGES 016 MAX THEEADS PER MR. v.S. • 2742 HOLEADS PER AND 10387 BASIC CODES 83=36570470AD CHANGE OFFICE CLEXT REPORT ALL DISCREPANCIES - DO NOT SCALE

D2022